

helicopter were for secondary missions, the helicopter being deployed after the land ambulance had arrived at the scene.

It is clear from the work with the West Midlands that the best effective deployment of an air ambulance is as a primary resource replacing a land-based ambulance resource. The only absolute measure of evaluating the emergency response care provided by the ambulance service will be a clearly demonstrated reduction in morbidity and mortality and this can only be shown with reference to formal trauma scoring in particular TRISS methodology.

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Management of the moribund carbon monoxide victim

Sir

We write in response to your interesting article on the management of the moribund carbon monoxide (CO) victim (Thomson *et al.*, 1992). There is no hyperbaric unit in South East Queensland, the closest unit being in Townsville Hospital, a distance of 1600 km north of Brisbane by air. We are frequently faced with patients requiring hyperbaric oxygen therapy (HBO) for CO poisoning, and as the accident and emergency (A&E) consultants who staff the aero-medical retrieval rota, we are responsible for their inter-hospital transfer. We wish to make two observations.

Hyperbaric oxygen therapy is mandatory for significant CO poisoning (Meredith & Vale, 1988; Gorman & Runciman, 1991). However, what is the most reliable marker of severe CO poisoning, and what regime of HBO therapy is most effective is unclear from the literature (Gorman *et al.*, 1992). It seems likely that two or more HBO treatments administered without delay offer the best outcome. Even patients treated with 100% oxygen by face mask, but no HBO, are subject to significant neuropsychiatric sequelae, including dementia, psychosis, Parkinsonism, personality changes and almost every other known neurological syndrome (Myers *et al.*, 1985; Norkool & Kirkpatrick, 1985). Despite the logistical problems inherent in long transfers, the consequences of non-treatment may be so catastrophic that distance is *never* an appropriate reason for preventing access to HBO therapy, should such treatment be indicated.

Secondly, we agree with the authors that this patient's management could have been improved with muscle paralysis and endotracheal intubation. The single most important factor governing outcome in inter-hospital transfers is pristine management of the airway. In this case, the indication for aggressive airway

management prior to transfer was a Glasgow Coma Score of less than 8, as in such unconscious patients airway obstruction may be insidious and unrecognized. In addition, there was a requirement for a guaranteed supply of 100% oxygen (Meredith & Vale, 1988) and a necessity to lower suspected elevation of intracranial pressure by hyperventilation. These needs would have been met by intubation and ventilation.

We perform approximately 300 critical care transfers per annum, both by rotary and fixed wing aircraft. We endotracheally intubate 80% of patients to ensure optimum oxygenation and ventilation and would not contemplate transferring an unconscious CO poisoned patient without first protecting the airway in this fashion. Until appropriate patients are accorded this most fundamental intervention, there will continue to be avoidable morbidity and mortality in inter-hospital transfers.

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Computer-assisted diagnosis and abdominal pain

Sir

P. A. Stonedbridge *et al.* (1992) in their article on computer-assisted diagnosis (CAD) and abdominal pain have concluded that a gradual fall in the diagnostic accuracy of CAD is probably due to so-called 'routine use factor', doctors losing initial novelty value of computer usage and enthusiasm. This experience is somewhat predictable. However, it is a pity that over-emphasis on CAD, especially in the accident and emergency (A&E) setting, somehow under-valued the use of traditional, human, clinical skill. A previous study (Lawrence *et al.*, 1987) has shown that the use of a structured data sheet alone was as useful as CAD in diagnosing correctly the acute abdominal pain. The author and his colleagues (Maitra *et al.*, 1988) demonstrated that relatively experienced doctors using standard,